

REMARKS

By this Amendment, claims 1, 5 and 8-13 are amended. Claims 2-4 and 6-7 remain in the application. Thus, claims 1-13 are active in the application.

Reexamination and reconsideration of the application are respectfully requested.

In item 7 on page 2 of the Office Action, claims 1 and 5-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hurtado et al. (U.S. 6,418,421), in view of Hall et al. (U.S. 5,920,861), and further in view of Iijima (U.S. 5,515,532) and Nishikawa (U.S. 6,421,685).

Without intending to acquiesce to this rejection, independent claims 1, 5 and 8-13 have each been amended in order to more clearly illustrate the marked differences between the present invention and the applied references. Accordingly, the Applicants respectfully traverse this rejection for the following reasons.

The present invention is a novel improvement for allowing a content, such as a compressed audio content having a long playback period, to be moved together with its usage rule information, where the content is stored in a plurality of files. In particular, the present invention is related to moving a compressed audio content using variable-length coding together with its usage rule information, where the content is stored in a plurality of files.

When moving such a compressed content, it is desirable to divide the content into a plurality of files. The reason for this is to restrict a time search table of the file to a fixed length and to thus restrict a predetermined size of the content. The time search table shows read addresses to be accessed at the time of fast forwarding or rewinding (forward or backward search). This feature is disclosed in the specification in, for example, page 41, line 9 to page 42, line 1, which provides the following:

Since the amount of data played back into two seconds will be between 4 KB and 36 KB, the data length of each entry in the time search table for recording the data length of audio data needs to be two bytes (= 16 bits). This is because a 16-bit value is capable of expressing a number of between 0 KB and 64 KB. On the other hand, if the total data size of the time search table needs to be restricted to 504 bytes (this being the size of the TKTMSRT described later), for example, the maximum number of entries in the time search table can be calculated as $504/2 = 252$. Since an entry is provided every two seconds, the playback time corresponding to this maximum of 252 entries is 504 seconds ($= 2s \times 252$), or, in other

words, 8 minutes and 24 seconds (= 8.4 minutes). As a result, setting the maximum playback period for an AOB_Block at 8.4 minutes limits the data size of the time search table to 504 bytes.

Consider the case where one distribution medium stores (i) an object file containing a content in its entirety, and (ii) two or more object files containing parts that collectively make up another content. In such a case, it is difficult to determine which part of which content is contained in which object file and which object file (or object files) is to be moved.

This problem is compounded when contents are compressed by using variable-length coding. In the case where a playback apparatus performs a forward or backward search on such a compressed content, intermittent playback needs to be performed. Intermittent playback is achieved by repeatedly playing back the content for a period of 240 ms and skipping two seconds of the content between intermittent playback periods. Since the content is compressed by using variable-length coding, the data size corresponding to a two-second period is not fixed. Consequently, it is not easy to specify the address corresponding to two seconds ahead of or behind the current position.

The present invention solves the above problems as follows. One aspect of the present invention provides a rule management file containing a plurality of rule entries in a one-to-one correspondence with the object files. Each rule entry includes management information and permission information for its corresponding object file. Further, each rule entry also includes a content identifier which identifies a content from which a corresponding object file is derived so that it is readily identified to a corresponding content. With this feature, one content may be divided so as to be contained in a plurality of object files, and the plurality of object files that comprise the divided content can be moved as a set, when the divided content is to be moved.

Another novel aspect of the present invention is a time search table which is included in track information of the content. The time search table enables special playback operations such as a forward or backward search, and provides a high level of convenience for the user. Furthermore, the time search table of the present invention shows the read addresses of each of a plurality of entries at two second intervals. By referring to the time search table, the playback apparatus can easily specify the address to

be read after a skip. Accordingly, the present invention allows for forward and backward searches to be performed suitably and accurately.

Furthermore, as described above, the present invention provides that an audio content may be divided so as to be contained in a plurality of object files in order to restrict the size of the time search table. This operation is performed because, as described above, when an audio object to be moved is contained in a plurality of object files, it is difficult to determine which files correspond to the audio object and which files should be moved.

Accordingly, the present invention provides that a rule management file contains a plurality of rule entries in one-to-one correspondence with the object files. Each rule entry includes management information and permission information for its corresponding object file. Further, each rule entry also includes a content identifier identifying a content from which a corresponding object file is derived. Thus, it is readily determined which object file corresponds to which content. With this feature, one compressed content using variable-length coding may be divided so as to be contained in a plurality of object files, and yet, the plurality of object files that comprise the divided content can be collectively moved as a set.

The present invention, as well as each of independent claims 1, 5 and 8-13, requires: (1) each content is a compressed audio content using variable-length coding, (2) each content is recorded onto a recording medium together with a usage rule corresponding to the content, and (3) a plurality of files containing the divided parts of a content are recorded together with usage rules corresponding to the content.

Claim 1 of the present invention recites a distribution system for recording a copy of compressed audio content using variable-length coding onto a recording medium and supplying the content to a playback apparatus. The distribution system of claim 1 comprises, in part, a first receiving unit operable to receive, via a network, a data set including the content and control information controlling copying of the content onto the recording medium, and to hold the received data set. The distribution system of claim 1 also comprises, in part, a first receiving unit operable to generate authorization information showing whether moving the data set to another receiving apparatus is permitted, and to record the content onto a distribution medium together with

corresponding usage rule information including (1) the authorization information, and (2) the control information included in the data set. Claim 1 further defines the recording unit as being operable to record, into a rule management file provided in the distribution medium, the content as a plurality of contents together with corresponding plurality of contents usage rule information.

Claim 5 of the present invention recites a semiconductor memory card which is used as a distribution medium in a distribution system. The semiconductor memory card comprises a volume area, in which the compressed audio content using variable-length coding and usage rule information are recorded, the usage rule information including control information controlling copying of the recorded content onto the recording medium, and authorization information showing whether moving the control information and the content to the second receiving apparatus is permitted. Claim 5 further defines that the content comprises a plurality of contents that are recorded onto the semiconductor memory card together with corresponding plurality of contents usage rule information, where the usage rule information is contained in a rule management file that is provided in the semiconductor memory card.

Each of claims 8-13 recite, in part, that each content is a compressed audio content using variable-length coding, and that the content comprises a plurality of contents that are recorded onto the distribution medium together with corresponding plurality of contents usage rule information, where the usage rule information is contained in a rule management file that is contained in the distribution medium.

Claims 1, 5 and 8-13 also each recite that the entirety of at least one of the plurality of contents is contained in a single object file, and at least one of the plurality of contents is divided so as to be contained in a plurality of object files. Further, claims 1, 5 and 8-13 also each recite that each of a plurality of rule entries that corresponds to an object file containing a part of the at least one of the plurality of contents, which is divided, includes a content identifier for the at least one of the plurality of contents, which is divided, and one of the plurality of the rule entries includes corresponding usage rule information.

Accordingly, each of claims 1, 5 and 8-13, requires: (1) each content is a compressed audio content using variable-length coding, (2) each content is recorded onto

a recording medium together with a usage rule corresponding to the content, and (3) a plurality of files containing the divided parts of a content are recorded together with usage rules corresponding to the content.

Contrary to the Examiner's assertion, the Applicants respectfully submit that the applied references clearly fail to disclose or suggest at least these limitations of claims 1, 5 and 8-13.

Hurtado et al. discloses a system for transmitting a content to a user after a license to play the content has been transmitted to a user device. The system of Hurtado et al. compresses and encrypts the content by using an encryption key, and decompresses the content by using the encryption key.

The system of Hurtado et al. also tracks usage of the content on the user devices by means of a logging site. Whenever the content is played by, or copied from, a content player which received the licensed content, information is transmitted to a logging site (clearinghouse). Hurtado et al. discloses that the logging site provides licensing authorization by enabling users to unlock content after verification of a successful completion of a licensing transaction, i.e., payment of a fee. A secure container (SC), in which the content is stored, then sends encrypted contents to a user who has made a successful completion of the licensing transaction for the content when an electronic digital content store 103 instructs the SC to issue the content to the purchasing user (see Column 13, lines 10-20). Hurtado et al. discloses that a content is encrypted within the SC but the storage and distribution of the content are separate from the control of the unlocking and use of the transmitted content. Hurtado et al. also discloses that a decryption key is transmitted to the user so that the user can unlock the encrypted content (see Column 10, lines 16-22).

On page 4 of the Office Action, the Examiner contends that Hurtado et al. discloses that a recording unit of the SC or the digital content store records, into a management file provided in the distribution medium of the SC, the content as a plurality of content together with corresponding plurality of contents usage rule information. However, as described above, the "recording unit" of the SC manages the encrypted content and the decryption keys separate from each other (see Column 10, lines 16-22).

In addition, Hurtado et al. clearly does not disclose or suggest that the content is compressed audio content using variable-length coding, as recited in each of claims 1, 5 and 8-13. In contrast, as described above, Hurtado et al. merely discloses that the content is compressed and decompressed by using an encryption key.

Furthermore, the digital content store of Hurtado et al. is clearly not disclosed or suggested as comprising a recording unit which records, into a rule management file provided in the distribution medium, the content as a plurality of contents together with corresponding plurality of contents usage rule information. As described above, the usage information of Hurtado et al. is kept separate from the content until the user receives the content. For instance, Hurtado et al. discloses that in the user device, an application 195 embeds a digital code, i.e., watermark, in every copy of the content, where the watermark defines the allowable number of secondary copies a user can make of the content. Hurtado et al. also discloses that the watermark embedded in the content is kept as a part of the usage conditions which are associated with the content, and that the watermark is updated as required (see Column 10, lines 29-45). However, as described above, the watermark and the content are not recorded together in the digital content store.

Accordingly, Hurtado et al. merely discloses that a usage rule of a content is transmitted to a user prior to the transmission of a content so that playback or copying of the content by the user is managed according to the usage rule. However, despite the Examiner's assertion to the contrary, Hurtado et al. clearly does not disclose or suggest that (1) each content is a compressed audio content using variable-length coding, (2) each content is recorded onto a recording medium together with a usage rule corresponding to the content, and (3) a plurality of files containing the divided parts of a content are recorded together with usage rules corresponding to the content, as recited in each of claims 1, 5 and 8-13.

Hall et al. discloses a descriptive data structure (DDS) that provides a rights management structure such as a secure container with associated information, i.e., content. The DDS describes, for example, the layout of the rights management data structure. An application program has an interpreter, and interprets the DDS. Based on the resulting interpretation, the application makes use of the content. Since the DDS

provides an abstract representation of a rights management data structure, it is ensured that the rights management data structures are interoperable and compatible. Hall et al. also discloses that DDS may be distributed as a security container in the form of a recording medium. The DDS is used for rights management. However, it must be noted that an important aspect of Hall et al. is to provide rights management data structures that are interoperable and compatible with each other.

Nonetheless, Hall et al. clearly does not disclose or suggest that a plurality of files containing the divided parts of a content are recorded together with usage rules corresponding to the content, as recited in each of claims 1, 5 and 8-13. Furthermore, Hall et al. also does not disclose or suggest that the content is compressed audio content using variable-length coding, as recited in each of claims 1, 5 and 8-13.

Iijima discloses a file management system for an IC card. An internal memory of the IC card has a plurality of data and key areas, which can be grouped by a concept referred to as a data file. A directory for managing files is divided into fixed-length fields, and definition information of the data files and areas is stored in each of the divided fields (see Figures 4 and 5). The definition information includes fixed information and variable information. The fixed information remains unchanged despite any change in corresponding files, whereas the variable information is dependent on a change in corresponding files.

Accordingly, Iijima merely discloses that files are divided into a plurality of fixed-length fields and management of the divided files is performed. However, Iijima clearly does not disclose or suggest that (1) each content is a compressed audio content using variable-length coding, or (3) a plurality of files containing the divided parts of a content are recorded together with usage rules corresponding to the content, as recited in each of claims 1, 5 and 8-13.

The feature (3) of claims 1, 5 and 8-13 deals with a demand for reducing a load imposed on a playback apparatus at the time of performing special playback, by restricting the time search table to a fixed length, i.e., size. Iijima, however, fails to disclose, suggest or even contemplate anything with regard to “restricting the time search table” to a fixed length. It is because Iijima aims to minimize an influence that will be

caused when a file is locally damaged or destroyed that Iijima clearly teaches away from the object and aim of the present invention.

Therefore, not only does Iijima clearly not disclose or suggest (3) a plurality of files containing the divided parts of a content are recorded together with usage rules corresponding to the content, as recited in each of claims 1, 5 and 8-13, one skilled in the art to which the present invention pertains would clearly not apply the teachings of Iijima to cure the demonstrated deficiencies of Hurtado et al. and Hall et al. so as to arrive at the inventions of claims 1, 5 and 8-13.

Nishikawa discloses a file control system which can reflect updated data in files of both a personal computer (PC) and a portable information terminal apparatus (PDA) when data has been updated in one of the PC and the PDA. FILE-A.xls refers to a file stored in the PC, whereas FILE-A.pig refers to a file stored in the PDA. FILE-A.wlf associates the FILE-A.xls and FILE-A.pig files with each other. Nishikawa discloses that when either FILE-A.xls or FILE-A.pig is modified, the modification is reflected in FILE-A.wlf. FILE-A.xls and FILE-A.pig are modified based on FILE-A.wlf so that compatibility between these two files is maintained.

Accordingly, Nishikawa merely discloses a data exchange between two devices. However, what is exchanged in Nishikawa between the two devices is modifications that are made to associated files, not a content or usage rule. Therefore, Nishikawa also clearly fails to disclose or suggest (3) a plurality of files containing the divided parts of a content are recorded together with usage rules corresponding to the content, as recited in each of claims 1, 5 and 8-13.

Therefore, in view of the above, Hurtado et al., Hall et al., Iijima and Nishikawa, either individually or in combination, clearly fail to disclose or suggest that that (1) each content is a compressed audio content using variable-length coding, (2) each content is recorded onto a recording medium together with a usage rule corresponding to the content, and (3) a plurality of files containing the divided parts of a content are recorded together with usage rules corresponding to the content, as recited in each of claims 1, 5 and 8-13.

To establish *prima facie* obviousness of a claimed invention under 35 U.S.C. 103(a), all of the claim limitations must be disclosed or suggested by the applied prior

art. See CFMT, Inc. v. YieldUp Int'l Corp., 349 F.3d 1333, 1342, 68 U.S.P.Q.2D 1940, 1946-47 (Fed. Cir. 2003); In re Royka, 490 F.2d 981, 985, 180 U.S.P.Q. 580, 583 (C.C.P.A. 1974).

Accordingly, since Hurtado et al., Hall et al., Iijima and Nishikawa, either individually or in combination, clearly fail to disclose or suggest each and every limitation of claims 1, 5 and 8-13, claims 1, 5 and 8-13 are clearly patentable over Hurtado et al., Hall et al., Iijima and Nishikawa.

In item 49 on page 23 of the Office Action, claims 2-4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hurtado in view of Hall et al., Iijima and Nishikawa and further view of Coley et al. (U.S. 5,790,664) and Bendert et al. (U.S. 5,761,678). Further, in item 65 on page 29 of the Office Action, claims 6-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hurtado in view of Hall et al., Iijima and Nishikawa and further view of Shear et al. (U.S. Publication No. 2001/0042043).

As clearly demonstrated above, Hurtado et al., Hall et al., Iijima and Nishikawa fail to disclose or suggest each and every limitation of claims 1, 5 and 8-13. Furthermore, for the following reasons, the Applicants respectfully submit that the Coley et al., Bendert et al. and Shear et al. clearly fail to cure the deficiencies of Hurtado et al., Hall et al., Iijima and Nishikawa.

Coley et al. discloses a system involving attaching to a content a licensing system module that determines whether the content is validly licensed, whereby use of the content by an end user is managed. In particular, the licensing system module forms an inquiry message as to the license record and sends the inquiry message to a database that is maintained by the content provider and that stores the records of valid licenses. In response to the inquiry message, the database returns a response message that is interpreted by the licensing system module. The licensing system module then enables or disables the use of the content according to the response message.

However, Coley et al., similar to the above-described references, clearly does not disclose or suggest that (1) each content is a compressed audio content using variable-length coding, (2) each content is recorded onto a recording medium together with a usage rule corresponding to the content, and (3) a plurality of files containing the divided

parts of a content are recorded together with usage rules corresponding to the content, as recited in each of claims 1, 5 and 8-13.

Bendert et al. discloses a technique for efficiently managing clones of an object group. A base storage area contains metadata for each of the multiple objects in object group. The metadata for each object identifies data within each object. A clone storage area contains an identification of the base storage area but not the metadata. When a subsequent request is made to update one of the objects, the metadata is copied to the clone storage area.

Bendert et al., however, clearly does not disclose or suggest that (1) each content is a compressed audio content using variable-length coding, and (3) a plurality of files containing the divided parts of a content are recorded together with usage rules corresponding to the content, as recited in each of claims 1, 5 and 8-13.

Shear et al. discloses that a control object defines plural rights management rules, such as a price for performance or rules governing redistribution. A secure software container can be used to protectively encapsulate a digital content and a suitable control object. Low capability platforms may enable only a part of the control rules, whereas higher capability platforms may enable all of the rules.

However, Shear et al., similar to each of the above-described references, clearly fails to disclose or suggest that (1) each content is a compressed audio content using variable-length coding, and (3) a plurality of files containing the divided parts of a content are recorded together with usage rules corresponding to the content, as recited in each of claims 1, 5 and 8-13.

Therefore, for the foregoing reasons, Coley et al., Bendert et al. and Shear et al. clearly fail to cure the deficiencies of Hurtado et al., Hall et al., Iijima and Nishikawa for failing to disclose or suggest each and every limitation of claims 1, 5 and 8-13.

Accordingly, no obvious combination of Hurtado et al., Hall et al., Iijima Nishikawa, Coley et al., Bendert et al. and Shear et al. would result in the inventions of claims 1, 5 and 8-13 since Hurtado et al., Hall et al., Iijima Nishikawa, Coley et al., Bendert et al. and Shear et al. clearly fail to disclose or suggest each and every limitation of claims 1, 5 and 8-13.

Therefore, claims 1, 5 and 8-13 are clearly allowable over Hurtado et al., Hall et al., Iijima Nishikawa, Coley et al., Bendert et al. and Shear et al.

Furthermore, it is submitted that the clear distinctions discussed above are such that a person having ordinary skill in the art at the time the invention was made would not have been motivated to modify Hurtado et al., Hall et al., Iijima Nishikawa, Coley et al., Bendert et al. and Shear et al. in such as manner as to result in, or otherwise render obvious, the present invention as recited in claims 1, 5 and 8-13. Therefore, it is submitted that the claims 1, 5 and 8-13, as well as claims 2-4 and 6-7 which depend therefrom, are clearly allowable over the prior art as applied by the Examiner.

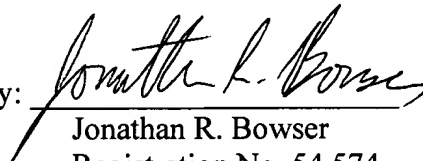
In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is respectfully solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

A fee and a Petition for a one-month Extension of Time are filed herewith pursuant to 37 CFR § 1.136(a).

Respectfully submitted,

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